



EU environmental policies

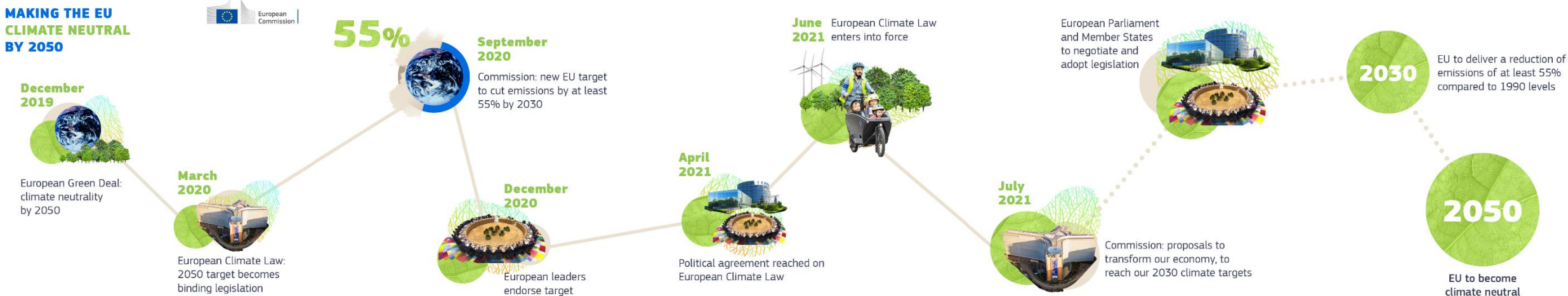
ESA Clean Space Industry Days

ESTEC - 11 October 2022

Vera Pinto

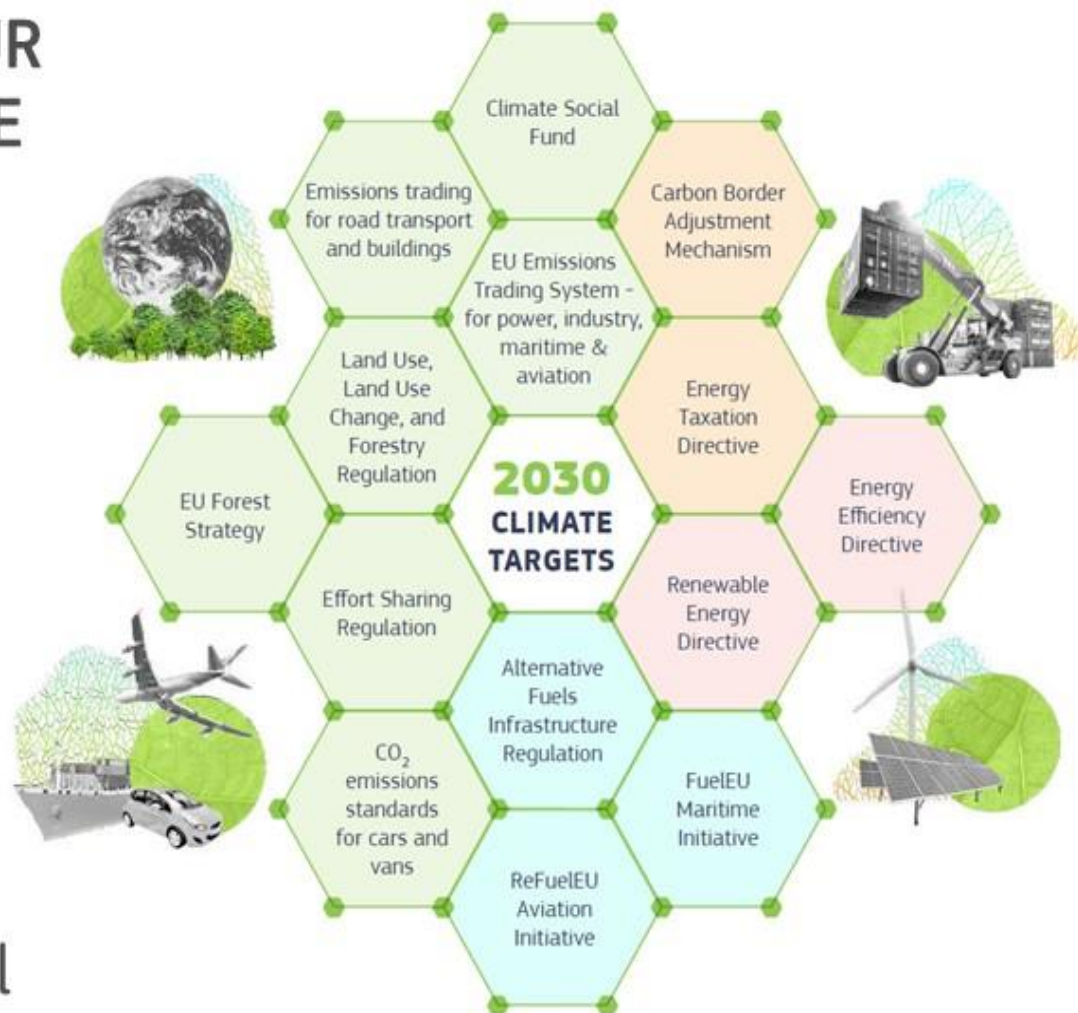
DG DEFIS – European Commission

Making the EU Climate neutral by 2050



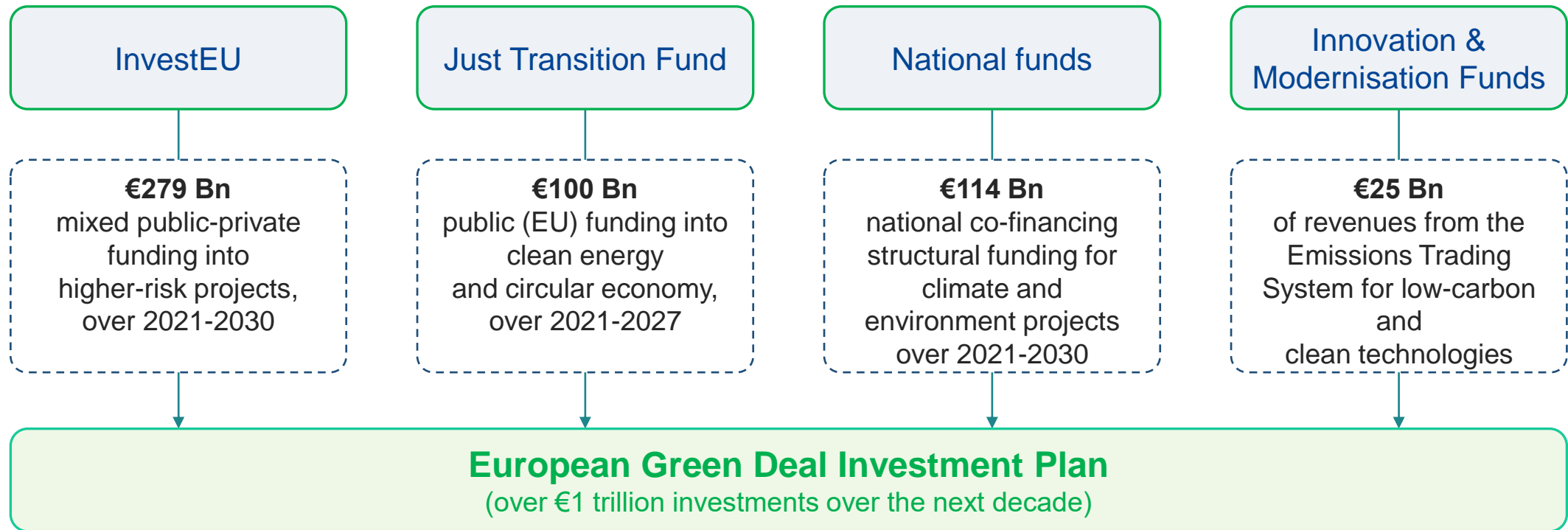
EUROPEAN GREEN DEAL

REACHING OUR 2030 CLIMATE TARGETS



#EUGreenDeal

Over € 0.5 trillion public funding is available to match private investments



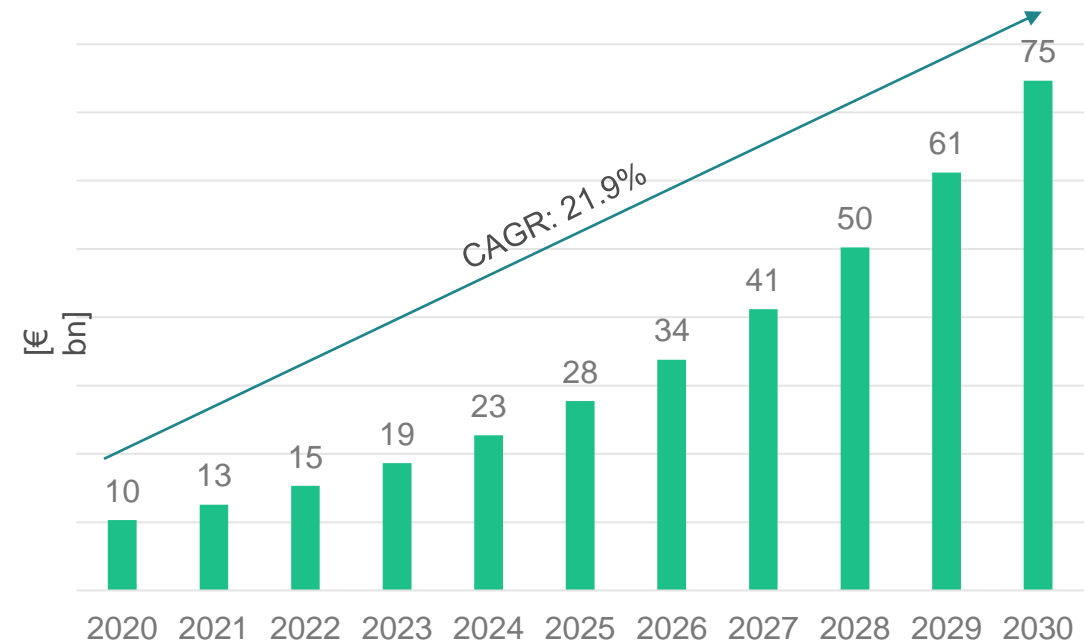
Digital technologies are a critical enabler for attaining the sustainability goals of the Green deal

Space application companies are leveraging unprecedented **availability of space-based data** together with the traction provided by Green Transformation **market growth** to create new services and products.

Private investments in energy transition totalled **EUR 214 billion in 2021** in the EMEA region, up 16% from 2020. To get on track for net zero, **investments must triple to 2025**, then double to 2030.²



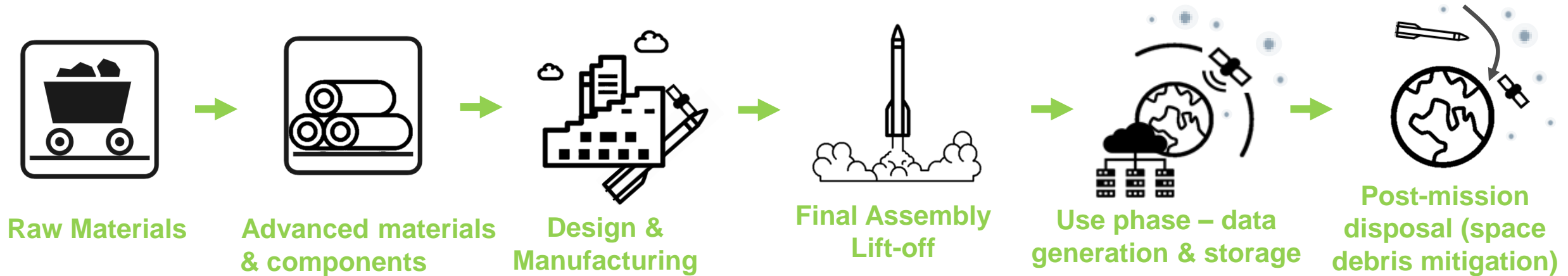
Global Green Transformation market¹ (2020 - 2030)



Including:

- Green buildings
- Carbon footprint management
- Weather monitoring & forecasting
- Air & water pollution monitoring
- Forest monitoring
- Crop monitoring
- Soil condition/moisture monitoring
- Water purification, and others

EU space value chain must be aligned with EU green policies



Green Transition is taking place!

- EC (2021)9332 **Commission recommendation** on the **use of the Environmental Footprint methods** to measure and communicate the life cycle environmental performance of products
- COM(2022) 71 final Proposal for a **Directive on corporate sustainability due diligence**. Businesses **must address adverse impacts of their actions in human rights and environment**, including in their value chains **inside and outside Europe**.
- EC(2022)142 final Proposal for a Regulation establishing a framework for setting **ecodesign requirements for sustainable products** and repealing Directive 2009/125/EC:
*“the space industry is strategic for Europe and for its technological non-dependence. As space technologies operate in extreme conditions, any ecodesign requirements for space products **should balance sustainability considerations with resilience and expected performance**”*
- **Aerospace & Defence Transition Pathway for green**, digital, and resilience: **public consultation before end 2022!**



REACH Regulation

- The European Commission DG in charge for Defence Industry and Space is well aware of the **impact of REACH on the space sector**. DG-DEFIS has taken specific actions to support the transition
- The EU Space WP, through H2020 and HE, has been **fostering and financing the developments of alternative solutions for REACH** space chemicals/materials e.g., hydrazine, chromates and lead
- As part of the topic covering **Critical Space Technologies for European non-dependence**, in 2021 COM has opened a call for projects focused on:
 - Replacement solutions for metallic lead (Pb) used in solder paste, assembly, finishings, terminations
- **Lead-free transition** in response to REACH regulation is considered by DG-DEFIS an **urgent and critical task**
 - Discussions are on-going to propose the same call in the Space WP2023 expected to be published at the end of November 2022



Space Traffic Management approach

STM is defined as the means and rules to access, conduct activities in, and return from outer space safely, sustainably and securely.

- STM relates to the following elements:
 - a) Space Situational Awareness (SSA) activities, including SST;
 - b) orbital debris mitigation and remediation;
 - c) management of space orbits and radio spectrum;
 - d) the **entire life-cycle of space** operations including launch phase, in-orbit operations of spacecraft, and end-of-life de-orbit operations;
 - e) re-entry phase of spacecraft (both controlled and uncontrolled).



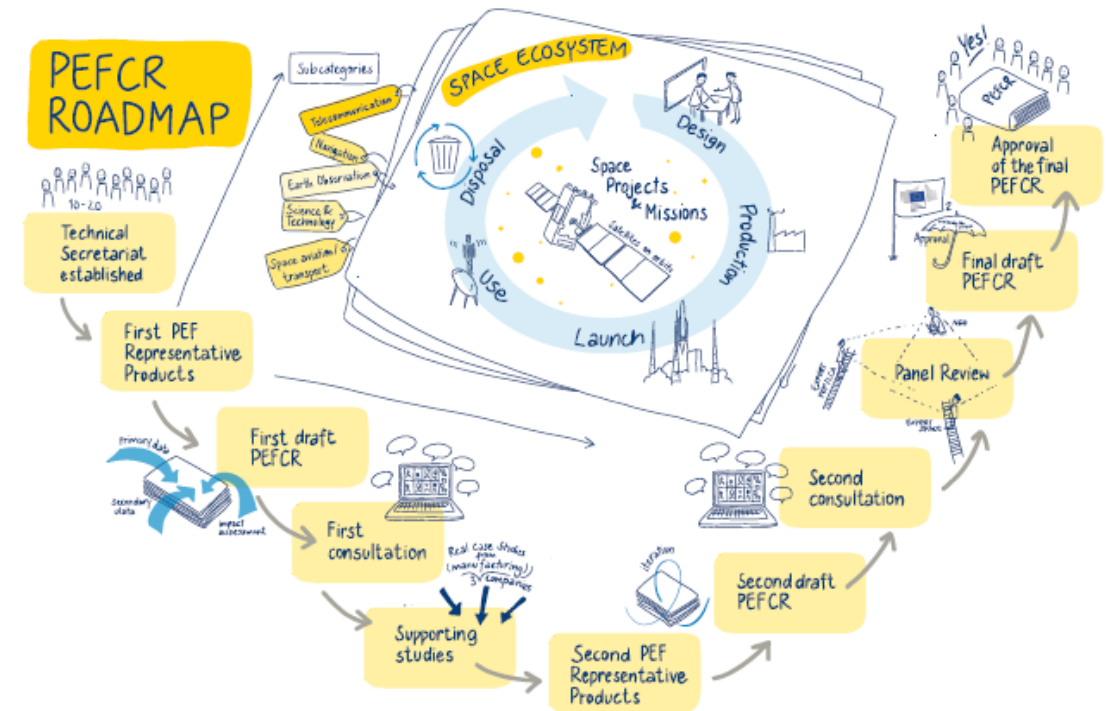
Secure Connectivity EC proposal

- n° 2 art°17: In **procurement procedures** for the purpose of the Programme, complementing the principles laid down in the Financial Regulation, the contracting authority shall act in accordance with the following principles: (...) “**to satisfy environmental criteria**”
- n. 7 art. 15: The contracts referred to in this Article shall contain provisions on the **establishment of a scheme to offset the CO2 emissions** generated by the launches of the infrastructure referred to in Article 5.



PEFCR on EU space activities

- A **commonly accepted PEFCR on Space activities**:
- Allow industry to follow the **same modelling rules**
- **Reduce the time and costs** for a study
- Increase **comparability and transparency**



Thank you



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